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Application No. (if known): 10/566944 Attorney Docket No.: 12810-00193-US

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Information Disclosure Statement (2 pages)
IDS (Citation) by Applicant PTO/SB/08 (3 pages)
Copies of References (53 References)
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Docket No.: 12810-00193-US
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Thorsten Zank et al.

Application No.: 10/566944 Confirmation No.: N/A

Filed: February 1, 2006 Art Unit: N/A

For: METHOD FOR THE PRODUCTION OF MULTIPLE-UNSATURATED FATTY ACIDS IN TRANSGENIC ORGANISMS Examiner: Not Yet Assigned

INFORMATION DISCLOSURE STATEMENT (IDS)

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Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed within three months of the U.S. filing date (37 CFR 1.97(b)(1)).

Of the documents listed on the attached SB/08 include the documents cited in the International Search Report and International Preliminary Examination Report during the prosecution of international application no. PCT/EP2004/007957, which corresponds to the above referenced application, and in accordance with 37 CFR 1.97(b)(3), Applicants hereby submit these documents for the Examiner's consideration. A copy of each reference on the PTO/SB/08 required under 37 CFR 1.98(a)(2) are enclosed.

This statement is not to be interpreted as a representation that the cited documents are material, that a search has been conducted, or that no other relevant information exists. Nor shall the citation of any document herein be construed *per se* as a representation that such document is prior art. Moreover, Applicants understand the Examiner will make an independent evaluation of the cited documents.

This Information Disclosure Statement is filed within three months of the U.S. filing date. Accordingly, Applicants believe no fee is due with this response. However, if a fee is due, the Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 12810-00193-US from which the undersigned is authorized to draw.

Dated: March 9, 2006

Respectfully submitted,

By _____

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 3

Complete if Known	
Application Number	10/566944
Filing Date	February 1, 2006
First Named Inventor	Thorsten Zank
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	12810-00193-US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number: Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA*	US-5,614,393	03-25-1997	Thomas T. L. et al.	
	AB*	US-6,043,411	03-28-2000	Nishizawa et al.	
	AC*	US-2004/0111763	06-10-2004	Heinz et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3]-Number[4]-Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	BA	WO-91/13972	09-19-1991	Calgene, Inc.		
	BB	WO-93/11245	06-10-1993	E.I. DuPont De Nemours and Co.		
	BC	WO-94/11516	05-26-1994	E.I. DuPont De Nemours and Co.		
	BD	WO-94/18337	08-18-1994	Monsanto Company & Michigan State University		
	BE	WO-97/30582	08-28-1997	Carnegie Institution Of Washington & Monsanto Co., Inc.		
	BF	WO-97/21340	06-19-1997	Cargill, Inc.		
	BG	WO-93/06712	04-15-1993	Rhone-Poulenc Agrochimie		
	BH	WO-96/21022	07-11-1996	Rhone-Poulenc Agrochimie		
	BI	WO-00/21557	04-20-2000	Merck & Co., Inc.		
	BJ	WO-99/27111	06-03-1999	University of Bristol		
	BK	WO-98/46763	10-22-1998	Calgene LLC & Abbott Laboratories		
	BL	WO-98/46764	10-22-1998	Calgene LLC & Abbott Laboratories		
	BM	WO-98/46765	10-22-1998	Calgene LLC & Abbott Laboratories		
	BN	WO-99/64616	12-16-1999	Abbott Laboratories		
	BO	WO-98/46776	10-22-1998	Calgene LLC		
	BP	WO-02/077213	10-03-2002	University of Bristol		
	BQ	WO-00/12720	03-09-2000	Abbott Laboratories		
	BR	WO-02/08401	01-31-2002	Abbott Laboratories		
	BS	WO-02/44320	06-06-2002	Xenon Genetics Inc.		
	BT	WO-95/18222	07-06-1995	Kirin Beer Kabushiki Kaisha	See US 6,043,411	
	BU	WO-01/59128	08-16-2001	BASF Aktiengesellschaft	See US 2004-0111763	
	BV	CA-2485060	11-13-2003	BASF Plant Science GMBH		
	BW	EP-0550162	07-07-1993	Pioneer Hi-Bred International, Inc.		
	BX	EP-0794250	09-10-1997	Soremartec S.A. & Ferrero S.p.A.		
	BY	DE-10219203	11-13-2003	BASF Plant Science GmbH	See CA2485060	

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(Use as many sheets as necessary)				Art Unit	N/A
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Sheet	2	of	3	Attorney Docket Number	12810-00193-US

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	CA	Poulos, A. "Very Long Chain Fatty Acids in Higher Animals - A Review", Lipids, 1995, Vol. 30, No. 1, pp. 1-14.	
	CB	Horrocks, L. A., et al., "Health Benefits of Docosahexaenoic Acid (DHA)." Pharmacological Research, 1999, Vol. 40, No. 3, pp. 211-225.	
	CC	Stukey, J. E., et al. "The *OLE1* Gene of *Saccharomyces cerevisiae* Encodes the Δ9 Fatty Acid Desaturase and Can be Functionally Replaced by the Rat Stearoyl-CoA Desatuase Gene." The Journal of Biological Chemistry, 1990, Vol. 265, No. 33, pp. 20144-20149.	
	CD	Wada, H., et al. "Enhancement of Chilling Tolerance of a Cyanobacterium by Genetic Manipulation of Fatty Acid Desaturation". Nature, 1990, Vol. 347, pp. 200-203.	
	CE	McKeon T., et al. "Stearoyl-Acyl Carrier Protein Desaturase from Safflower Seeds", from Methods in Enzymology, Lowenstein J. M. ed., 1981, Vol. 71(C), Lipids, pp. 275-281, Academic Press.	
	CF	Wang, X. M., et al. "Synthesis and Regulation of Linolenic Acid in Higher Plants", Plant Physiol. Biochem., 1988, Vol. 26, No. 6, pp. 777-792.	
	CG	Vazhappilly, R., et al., "Heterotrophic Production Potential of Omega-3 Polyunsaturated Fatty Acids by Microalgae and Algae-like Microorganisms", Botanica Marina, 1998, Vol. 41, pp. 553-558.	
	CH	Totani, N., et al. "The Filamentous Fungus *Mortierella alpina*, High in Arachidonic Acid." Lipids, 1987, Vol. 22, No. 12, pp. 1060-1062.	
	CI	Akimoto, M., et al. "Carbon Dioxide Fixation and Polyunsaturated Fatty Acid Production by the Red Alga *Porphyridium cruentum*", Applied Biochemistry and Biotechology, 1998, Vol, 73, pp. 269-278.	
	CJ	Takeyama, H., et al. "Expression of the Eicosapentaenoic Acid Synthesis Gene Cluster from *Shewanella* sp. in a Transgenic Marine Cyanobacterium, *Synechococcus* sp.", Microbiology, 1997, Vol. 143, pp. 2725-2731.	
	CK	Zank, T. K., et al. "Cloning and Functional Characterisation of an Enzyme Involved in the Elongation of Δ6-polyunsaturated Fatty Acids from the Moss *Physcomitrella patens*", The Plant Journal, 2002, Vol. 31, No. 3, pp. 255-268.	
	CL	Sakuradani, E., et al. "Δ6-Fatty Acid Desaturase from an Arachidonic Acid-Producing *Mortierella* Fungus - Gene Cloning and its Heterologous Expression in a Fungus, *Aspergillus*", Gene, 1999, Vol. 238, pp. 445-453.	
	CM	Sprecher, H. "Metabolism of Highly Unsaturated n-3 and n-6 Fatty Acids", Biochimica et Biophysica Acta, 2000, Vol. 1486, pp. 219-231.	
	CN	Tocher, D. R., et al., "Recent Advances in the Biochemistry and Molecular Biology of Fatty Acyl Desaturases", Prog. Lipid Res., 1998, Vol. 37. No. 2/3, pp. 73-117.	
	CO	Domergue, F., et al. "Cloning and Functional Characterization of *Phaeodactylum tricornutum* Front-End Desaturases Involved in Eicosapentaenoic Acid Biosynthesis", Eur. J. Biochem., 2002, Vol. 269, pp. 4105-4113.	
	CP	Shimokawa, H., "Beneficial Effects of Eicosapentaenoic Acid on Endothelial Vasodilator	

Examiner Signature		Date Considered	

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Sheet 3 of 3

Complete if Known	
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Filing Date	February 1, 2006
First Named Inventor	Thorsten Zank
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	12810-00193-US

		Functions in Animals and Humans", World Rev. Nutr. Diet., 2001, Vol. 88, pp. 100-108.	
	CQ	Calder, P. C., "Dietary Modification of Inflammation with Lipids", Proceedings of the Nutrition Society, 2002, Vol. 61, pp. 345-358.	
	CR	Cleland, L. G., et al., "Fish Oil and Rheumatoid Arthritis: Antiinflammatory and Collateral Health Benefits", The Journal of Rheumatology, 2000, Vol. 27, pp. 2305-2307.	
	CS	Pereira, S. L. et al., "A Novel ω3-Fatty Acid Desaturase Involved in the Biosynthesis of Eicosapentaenoic Acid", Biochem. J., 2004, Vol. 378, pp. 665-671.	
	CT	Millar, A. A., et al., "CUT1, An Arabidopsis Gene Required for Cuticular Wax Biosynthesis and Pollen Fertility, Encodes a Very-Long-Chain Fatty Acid Condensing Enzyme", The Plant Cell, 1999, Vol. 11, pp. 825-838.	
	CU	Tvrdik, P., et al., "Role of a New Mammalian Gene Family in the Biosynthesis of Very Long Chain Fatty Acids and Sphingolipids", The Journal of Cell Biology, 2000, Vol. 149, pp. 707-717.	
	CV	Drexler, H., et al. "Metabolic Engineering of Fatty Acids for Breeding of New Oilseed Crops: Strategies, Problems and First Results", Journal of Plant Physiology, 2003, Vol. 160, pp. 779-802.	
	CW	Beaudoin, F., et al., "Heterologous Reconstitution in Yeast of the Polyunsaturated Fatty Acid Biosynthetic Pathway", Proc. Natl. Acad. Sci. U. S. A., 2000, Vol. 97, No. 12, pp. 6421-6426.	
	CX	Meyer, A., et al., "Novel Fatty Acid Elongases and Their Use for the Reconstitution of Docosahexaenoic Acid Biosynthesis", Journal of Lipid Research, 2004, Vol. 45, pp. 1899-1909.	
	CY	Yu, R., et al., "Production of Eicosapentaenoic Acid by a Recombinant Marine Cyanobacterium, *Synechococcus* sp.", Lipids, 2000, Vol. 35, No. 10, pp. 1061-1064.	
	CZ	Huang, Y-S., et al. "Cloning of Δ12- and Δ6-Desaturases from *Mortierella alpina* and Recombinant Production of γ-Linolenic Acid in *Saccharomyces cerevisiae*", Lipids, 1999, Vol. 34, No. 7, pp. 649-659.	
	CA1	Millar, A. A., et al. "Very-Long-Chain Fatty Acid Biosynthesis is Controlled Through the Expression and Specificity of the Condensing Enzyme", The Plant Journal, 1997, Vol. 12, No. 1, pp. 121-131.	
	CB1	Zank, T. K., et al., "Cloning and Functional Expression of the First Plant Fatty Acid Elongase Specific for Δ^6-polyunsaturated Fatty Acids", Biochemical Society Transactions, 2000, Vol. 28, part 6, pp. 654-658.	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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